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**Linear magnetoconductivity in multiband spin-density-wave metals with nonideal nesting**[1] ALEXEI KOSHELEV, Argonne National Laboratory
— In several parent iron-pnictide compounds the resistivity has an extended range of linear magnetic field dependence. We argue that there is a simple and natural explanation of this behavior. Spin density wave transition leads to Fermi-surface reconstruction corresponding to strong modification of the electronic spectrum near the nesting points. It is difficult for quasiparticles to pass through these points during their orbital motion in magnetic field, because they must turn sharply. As the area of the Fermi surface affected by the nesting points increases proportionally to magnetic field, this mechanism leads to the linear magnetoresistance. The crossover between the quadratic and linear regimes takes place at the field scale set by the SDW gap and scattering rate.

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